## APPENDIX F

## Water Quality Improvements

Water quality improvements have resulted in pollutants no longer impairing an assessment unit. Each is a success story! Significant resources have been used to identify sources and control pollutant contributions in each case. No current delistings (Appendix E) are occurring based on these improvements.

These water quality improvements are *dependent* on continued application of the improvement noted in this table. Therefore, decision makers about future activities in the watershed or additional discharges need to be aware and continue to support these improvements.

| SURFACE WATER DESCRIPTION REACH NUMBER   | SIZE (miles/acres) | POLLUTANTS<br>DELISTED DUE TO<br>IMPROVEMENTS                                 | ACTIONS RESULTING IN IMPROVEMENTS   | TMDL<br>APPROVED                       |  |  |  |
|--|--------------------|---|---|--|--|--|--|
| BILL WILLIAMS WATERSHED  |                    |   |   |  |  |  |  |
| COLORADO – GRAND CANYON WATERSHED  |                    |   |   |  |  |  |  |
|  |                    | ER COLORADO - GILA  |   | Lxt                                    |  |  |  |
| Lake Havasu (Thompson Bay)<br>15030101-0590  | 19,780 a           | E. coli bacteria<br>(Delisted in 2002; first<br>listed in 1996)               | I. Improved sanitary facilities at beaches.     Public education concerning marine wastewater disposal.     Improvements in public wastewater treatment facilities to reduce nutrient loading.     Improvement in flow into Thompson Bay under London Bridge.     *No remaining impairments | No                                     |  |  |  |
| Painted Rock Borrow Pit<br>15070201-1010   | 185 a              | Dieldrin in fish tissue.<br>(Delisted in 2002; first<br>listed in 1988)       | General use of the pesticide dieldrin<br>banned<br>*Listed in Category 5 for other pollutants   | No                                     |  |  |  |
| LITTLE COLORADO WATERSHED  |                    |   |   |  |  |  |  |
| Nutrioso Creek<br>From headwaters to Nelson<br>Reservoir<br>15020001-017A  | 13.3 m             | Turbidity<br>(To delist in 2006; first<br>listed in 1992)                     | Cattle removed from the riparian area through addition of fencing and alternative sources of water. Riparian area improvements noted. *No remaining impairments   | Yes.<br>TMDL<br>approved in<br>2002    |  |  |  |
| MIDDLE GILA WATERSHED  |                    |   |   |  |  |  |  |
| Gila River<br>From the Salt River to Painted<br>Rock Reservoir<br>15070101-001, 005, 007, 008,<br>009, 010, 014, 015 | 82.5 m             | Dieldrin in fish tissue.<br>(Delisted in 2002; first<br>listed in 1988)       | General use of the pesticide dieldrin<br>banned<br>*Listed in Category 5 for other pollutants   | No                                     |  |  |  |
| Hassayampa River<br>From Buckeye Canal to Gila<br>River<br>15070101-001B   | 2.3 m              | Dieldrin in fish tissue.<br>(Delisted in 2002; first<br>listed in 1988)       | General use of the pesticide dieldrin<br>banned<br>*Listed in Category 5 for other pollutants   | No                                     |  |  |  |
| Mineral Creek<br>From Devils Canyon to Gila<br>River<br>15050100-012B  | 19.6 m             | Beryllium, zinc, and low<br>pH<br>(Delisted in 2004; first<br>listed in 1992) | Mineral Creek is diverted around a large<br>mining operation. Monitoring surface<br>water quality to assure this is sufficient to<br>protect water quality in the stream.<br>*Listed in Category 5 for other pollutants   | No                                     |  |  |  |
| Painted Rock Reservoir<br>15070101-1020A   | 100 a              | Dieldrin in fish tissue.<br>(Delisted in 2002; first<br>listed in 1988)       | General use of the pesticide dieldrin<br>banned<br>*Listed in Category 5 for other pollutants   | No                                     |  |  |  |
| Salt River<br>From 23 <sup>rd</sup> Avenue WWTP to<br>Gila River<br>15060106B-001D                                   | 14.1 m             | Dieldrin in fish tissue.<br>(Delisted in 2002; first<br>listed in 1988)       | General use of the pesticide dieldrin<br>banned<br>*Listed in Category 5 for other pollutants   | No                                     |  |  |  |
| Tempe Town Lake<br>15050100-1588   | 220 a              | Low pH<br>(Delisted in 2004; first<br>listed in 2002)                         | Treating lake with copper sulfate to control algal growth in coordination with a rigorous monitoring program.  *Listed in Category 5 for other pollutant  | 4B alternative  – Lake management plan |  |  |  |

| SURFACE WATER DESCRIPTION REACH NUMBER                                      | SIZE<br>(miles/acres) | POLLUTANTS<br>DELISTED DUE TO<br>IMPROVEMENTS   | ACTIONS RESULTING IN IMPROVEMENTS  | TMDL<br>APPROVED |  |  |
|---|-----------------------|---|--|------------------|--|--|
| SALT WATERSHED  |                       |   |  |                  |  |  |
| Pinal Creek<br>From lower Pinal Creek WTP to<br>Salt River<br>15060103-280D | 6.4 m                 | Copper, manganese, zinc,<br>and low pH<br>(Delisted in 2002; first<br>listed in 1988)       | Ground water is pumped so that surface water flow discontinues (flow was intermittent originally in this area). The water is treated and pumped back into the stream, providing clean perennial flow.  *No remaining impairments | No               |  |  |
| SAN PEDRO WATERSHED   |                       |   |  |                  |  |  |
| SANTA CRUZ WATERSHED  |                       |   |  |                  |  |  |
| UPPER GILA WATERSHED  |                       |   |  |                  |  |  |
| VERDE WATERSHED   |                       |   |  |                  |  |  |
| Munds Creek<br>From headwaters to Oak Creek<br>15060202-415                 | 17.0 m                | E. coli bacteria, nitrogen<br>and phosphorus<br>(Delisted in 2002; first<br>listed in 1994) | Wastewater reuse applications modified to keep effluent from contaminating Munds Creek.  *No remaining impairments   | No               |  |  |
| Ashbrook Wash<br>From Grande Wash to Verde<br>River<br>15060203-989         | 2 m                   | E. coli bacteria<br>(To delist in 2006; first<br>listed in 2004)                            | Wastewater treatment plant no longer discharging to this wash.  *No remaining impairments  | No               |  |  |

Total No Longer Impaired due to water quality improvements: 15 stream reaches; 163.9 stream miles

4 lakes/reservoirs; 20,285 acres